EXHIBIT A

03/02/00 [redacted] P146 DOS

APPLICATION NO. _____ FILE NO. 000090 BT

INVENTION DISCLOSURE FORM

TITLE: Dual Mission Specific Operating Systems for PC/Appliance multi-modal devices

TRACKING AND BAR DATE INFORMATION Received: [redacted] Date: [redacted]

SUBMISSION DATE [redacted]	LOCATION Toronto	PROJECT NAME [redacted]	R&D PROJECT NUMBER: 1054 PATENT ATTORNEY: JGL
TECHNOLOGY [redacted]	ASSOCIATED ATI PRODUCT [redacted]	DATE ASSIGNED TO ATTORNEY 03/07/00	PUBLIC DISCLOSURE (ex. printed publication/ put on sale) date: type: [redacted]

INVENTOR INFORMATION Signature:_____ Date: _____
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BRIEF TECHNICAL DISCUSSION OF THE INVENTION

(The spaces provided below will expand to meet the level of information disclosed.)

What is the problem the invention was designed to resolve or what was the technical challenge to be conquered?

There are computers. They do what computers do and they have shortcomings that people accept because of the benefits of flexibility and expandability and because that is what people are used to with computers.

There are consumer appliances such as TVs, VCRs, stereos, etc. They do what they do and they have different shortcomings that people accept because.

When computers and appliances are integrated into a single device that can replace multiple discrete devices including a PC and consumer appliances some of the shortcomings of the PC are no longer acceptable. The worst of these shortcomings is the fact that the PC operating system is designed to be a computer and has inherent weaknesses such as taking several minutes to "boot" are start. Also, there is the general instability that is exhibited in the PC market that is not acceptable for consumer appliances.

This invention is designed to alleviate this situation and enable the smooth integration of traditional PC with consumer appliance functionality.

What is/are the prior art solution(s) to the problem and why don't they solve the problem in a satisfactory way?

Previous solutions to this problem normally involve attempting to make the PC operating system work for both PC and consumer electronics functions. To date this has been less than optimal due to several factors including slow "boot" time, instability, high cost of PC operating systems, etc.

Another solution is to physically combine independent consumer electronics functions that have independent hardware into the same physical case as the PC. From the outside this does integrate PC and consumer electronics functionality. The difficulty with this approach is that it can be more expensive, may not leverage common components such as keyboards, buttons, displays, etc. It can also lead to needless redundancy, such as including a dedicated audio CD player alongside the PC's CD player.

What is the invention and how does it solve the problem in a new way?

This invention involves the use of 2 operating systems running on one collection of hardware to implement both PC and consumer appliance functionality in a single device. These 2 operating systems would not operate at the same time, but rather one would operate when the collection of hardware was in PC mode and the other operating system would operate when the same collection of hardware was in consumer appliance mode.

The operating system used for consumer appliance mode would have the necessary attributes to satisfy the expectations of the user. For example it would be located in a faster access ROM for instant starting and it would be very stable.

The operating system used for PC mode would have the necessary attributes to satisfy the expectations of the user. For example it would be located on a hard drive, take fairly long to boot, it would be upgradeable, very powerful and it would not be as stable as the consumer appliance mode operating system

The act of turning off PC mode would result in the termination of the PC operating system and the starting of the "consumer" mode operating system.

The act of turning off consumer appliance mode would result in the instantaneous powering down of the hardware to a power-off or "sleeping" state.

The act of turning on PC mode would result in the termination of the consumer mode operating system and the activation of the PC operating system.

To consider an example such as CD audio playback. When the device is in PC mode, the act of inserting a CD into the CD ROM drive will cause the PC operating system such as Windows to launch a PC application and play the CD. When in appliance mode, the act of the inserting the same audio CD into the CD ROM drive will cause a non-PC application to cause the audio to play. Buttons, keyboards and displays will be used in either case to control the functionality.

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